

## NOVEL POTASSIUM CHANNEL MOLECULES AND USES THEREFOR

### Abstract of the Disclosure

5        The invention provides isolated nucleic acids molecules, designated TWIK nucleic acid molecules, which encode proteins involved in potassium channel mediated activities. The invention also provides antisense nucleic acid molecules, recombinant expression vectors containing TWIK nucleic acid molecules, host cells into which the expression vectors have been introduced, and nonhuman transgenic animals in which a TWIK gene has  
10      been introduced or disrupted. The invention still further provides isolated TWIK proteins, fusion proteins, antigenic peptides and anti-TWIK antibodies. Diagnostic methods utilizing compositions of the invention are also provided.

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